

CLMPTO 10/18/04 JW

Amend Claims 1,3,4,5,6,7,8,9,10,
11,12,13,15,16,17,

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1. (Currently Amended) Apparatus for direct tunneling between a time division multiplexed (TDM) switch and a synchronous transfer mode (STM) backbone network, comprising:

an interface adapted for connection to an STM link for transferring STM data to, transfer STM data to, and receiving STM data from, the STM backbone network, and adapted for connection to at least one serial link for transferring pulse code modulated (PCM) data to, and receiving PCM data from, a fabric of the TDM switch, the interface converting the PCM data to STM data and data from the backbone network and vice versa; and

the interface being further adapted to emulate a trunk peripheral of the TDM switch so that a computing module of the TDM switch is enabled to communicate with the interface using a protocol native to the computing module for communication with a trunk peripheral,

wherein in response to receiving a control message from the computing module in order to effect a desired trunk connection, the interface is further adapted to cause the desired trunk connection to be a connection set up through the backbone network.

2. (Original) The apparatus as claimed in claim 1 wherein the trunk peripheral emulated by the interface is a digital trunk controller.

3. (Currently Amended) The apparatus as claimed in claim 1 wherein the serial link is connected to a switch fabric interface that receives PCM data from, and transfers PCM data to, a switch fabric of the TDM switch.

4. (Currently Amended) The apparatus as claimed in claim 1 wherein the switch fabric interface between is adapted to convert data received from the fabric of the TDM switch in electrical form to data in optical form for transfer over the serial link to the interface.

5. (Currently Amended) The apparatus as claimed in claim 1 wherein the interface is adapted to formulate and transfer messages through the STM backbone network to peer interfaces connected to the STM backbone network in order to set up connections for TDM

4. (Currently Amended) The apparatus as claimed in claim 3 wherein the interface is further adapted to formulate and transfer ATM signaling messages in order to initiate the set up and release of ATM virtual channel connections in the ATM backbone network.

5. (Currently Amended) The apparatus as claimed in claim 3 wherein the TDM switch is configured adapted to view the interface as a trunk peripheral that supports a single large trunk group.

6. (Currently Amended) A method of providing direct trunking between a time division multiplexed (TDM) switch and a synchronous transfer mode (STM) backbone network, comprising the steps of:

configuring providing an interface adapted to convert pulse code modulated (PCM) data to ATM cells and data format of the backbone network, and vice versa, so that the interface is further adapted to communicate with a computing module of the switch using a converging personal network in the switch and the interface thereby emulates to emulate a trunk peripheral of the TDM switch; and

connecting the interface directly to a serial link of a trunk interface of the TDM switch and directly to the backbone network to enable direct trunking between the TDM switch and the ATM backbone network; and

wherein in response to receiving a control message from the computing module to initiate or release a virtual trunk through the interface, the interface is further adapted to map the desired trunk number to a connection set up through the backbone network.

7. (Currently Amended) The method as claimed in claim 6 wherein the interface is further configured adapted to formulate and send messages through the ATM backbone network to peer interfaces in order to set up and release calls between the TDM switch and other TDM switches connected in the ATM backbone network.

8. (Currently Amended) The method as claimed in claim 6 wherein the interface is further configured adapted to formulate and send ATM signaling messages to initiate the setup or

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wherein the ATM virtual channel connections for the transfer of source traffic associated with the calls.

11. (Currently Amended) The method as claimed in claim 8 wherein further comprising a step of assigning translation tables to the TDM switch is configured to view each of the TDM switch where the interface is a trunk peripheral that supports a single large trunk group.

12. (Currently Amended) The method as claimed in claim 8 wherein further comprising a step of assigning translation tables to the TDM switch is configured to view each of the TDM switch where a plurality of interfaces as a collection of trunk peripherals that support a single large trunk group.

13. (Currently Amended) Apparatus for direct switching between a time-division multiplexed (TDM) switch and a synchronous transfer mode (STM) backbone network, comprising: an interface adapted for connection to an ATM link for transferring ATM cells to transfer data, and receiving ATM cells ~~transfer data~~ from the ATM backbone network, and adapted for connection to at least one serial link for transferring packet mode structured (PMS) data to, and receiving PMS data from, a fabric of the TDM switch, the interface converting the PMS data to ATM cells a data format of the backbone network and vice versa;

the interface being further adapted to include a trunk peripheral of the TDM switch, and to communicate with peer interfaces connected to the ATM backbone network to control virtual channel connections for TDM calls;

wherein in operation, the second processor in each switch is a shared switch member, the interface is further adapted to route the shared switch member to a translation table through the backbone network.

14. (Original) The apparatus as claimed in claim 13 wherein the interface is adapted to communicate with a computing module of the TDM switch using a protocol native to the computing module.

configuring processing as interface adaptation to connect public and residential (PRM) data to address a data format of the backbone network, and vice versa, so that the interface is adapted to enable a bank peripheral of the PRM with and to communicate with other interface connected to the backbone network; as network oriented network protocols for PRM calls; and

connecting the interface directly to a serial link of a specific fabric interface of the TDM switch to enable direct working between the TDM switch and the ATM backbone network, refers to a process of establishing a serial link between the connection mode and a call in a selected trunk number, the interface is further adapted to use the selected trunk number to a connection set up through the backbone network.

16. (Currently Amended) The method as claimed in claim 13 wherein the interface is outside the client device connections for TDM calls by sending messages through the A44 backbone connection to other interfaces in order to set up and release calls between the TDM switch and other TDM switches connected by other interfaces to the A44 backbone network.

17. [Kennedy America] The network is claimed in claim 16 wherein the interface is further configured to detect and send ATIS signaling messages to an ATIS switch to indicate the interface is connected to indicate the set up or release of ATIS virtual channel connections for the transfer of bearer traffic associated with the TSS calls.

19. (Original) The method as claimed in claim 15 wherein the TUI switch is configured to view the interface as a shared work controller that supports a single large work group.